

# CEWEP Ireland Submission to EU Workshop on Landfill of Waste in Dublin

## 1.0 Excess Landfill Capacity

A principal threat currently facing Ireland in meeting the Landfill Diversion targets is excess landfill capacity over and above the current “need”. A successful integrated system can only develop in Ireland if landfill capacity is constrained or otherwise disincentivised. This will allow other technologies higher up the waste hierarchy to develop, leading to a more sustainable waste management system.

Since 2005, CEWEP Ireland has been monitoring the development of landfill capacity across the country and comparing this to the amount of residual waste arising. From this, it has become apparent that poor coordination between regions and the development of unplanned facilities or extensions has led to a significant oversupply of landfill capacity, compared with that required for residual waste disposal.

In 2007 there was approximately 3.3 million tpa approved capacity compared with only 2.0 million tpa waste<sup>1</sup> deposited to landfill. This means that Ireland has 64% more capacity than is needed for the amount of residual waste arising. When compared with the amount of waste Ireland *is allowed* to send to landfill under the Landfill Directive, or with national landfill policy objectives, this excess is even greater.

An assessment of landfill capacity remaining and capacity currently in the approvals process indicates this excess will persist well into the future. This has been illustrated in Figure 1 below.

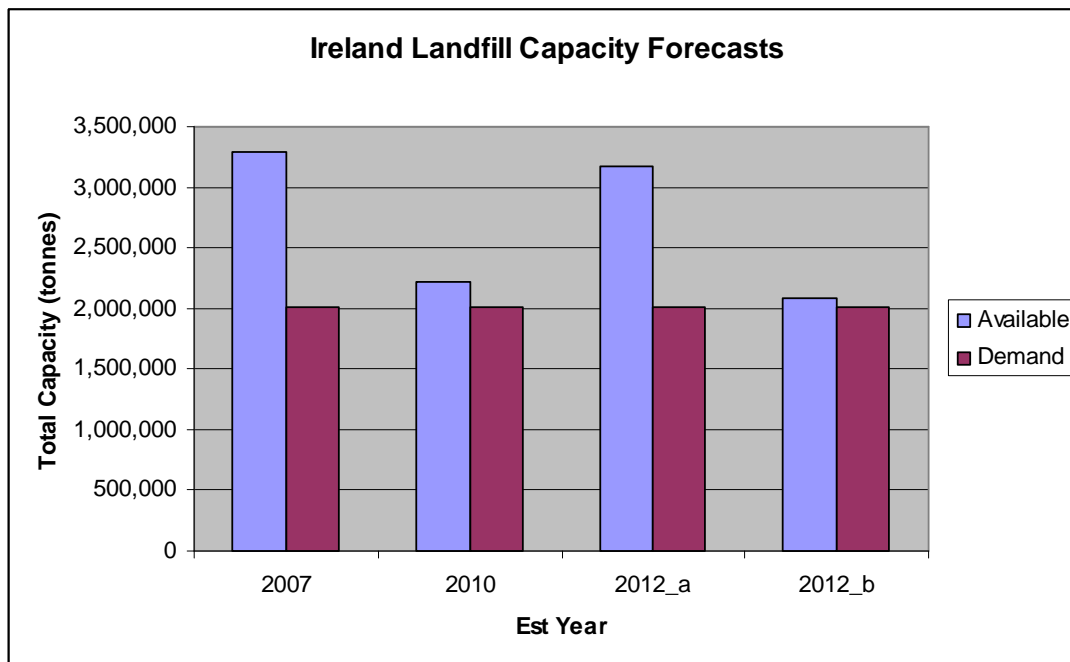


Figure 1 : Landfill Capacity Need vs. Availability

<sup>1</sup> Based on the EPA *National Waste Report 2007, 2009*, available at <http://www.epa.ie>



Figure 1 suggests that there will be an excess of 200,000 tonnes (60% over the need) in 2010, which could fall to approximately 64,000 tpa by 2012 (10% over the need) if there are significant delays to planned infrastructure in the Dublin region. However, where this planned infrastructure is developed as anticipated, this will result in excess capacity once again (60% over the need). Any further capacity developments would contribute to more excess landfill capacity. This regards, for example, the 370,000 tpa capacity currently in the approvals process.

It is noted that no attempt has been made in Figure 1 to forecast waste arising for the 2010 and 2012 estimates. Instead, 2007 landfill deposit figures have been used throughout. This agrees with figures compiled from Regional Waste Management Plans for recent landfill applications<sup>2</sup>, which estimate that residual waste quantities remain relatively constant from 2007 – 2019. These figures account for increased prevention and recycling activities. Therefore, the estimated scale of excess capacity estimated here is likely to be conservative.

## 2.0 Impact of Excess Capacity

An abundance of landfill capacity has resulted in increased competition between landfills for waste and a drop in gate fees. It is estimated that gate fees dropped to as low as €60/t<sup>3</sup> to €70/t between 2005 and 2008. The EPA in its 2006 report<sup>4</sup> recognised that low landfill gate fees had reduced the economic incentive to collect source-separated materials or to develop alternatives to landfill.

It is therefore not surprising that the quantity of waste going to landfill has increased every year since 2004, as shown in Figure 2 below. The most recent figures for 2007<sup>5</sup> show that MSW deposits increased by 1.7% on 2006 figures, with the amount of biodegradable waste increasing by 5%. Overall, the amount of MSW deposited to landfill since 2004 has increased by 11% or 200,000 tonnes.

Ireland must now divert approximately 520,000 tonnes of biodegradable waste from landfill within less than 12 months if it is to meet its (already delayed) Landfill Directive target. This must increase to 840,000 tonnes by 2013 and over 1 million tonnes by 2016. These targets are shown on the right hand side of Figure 2 below.

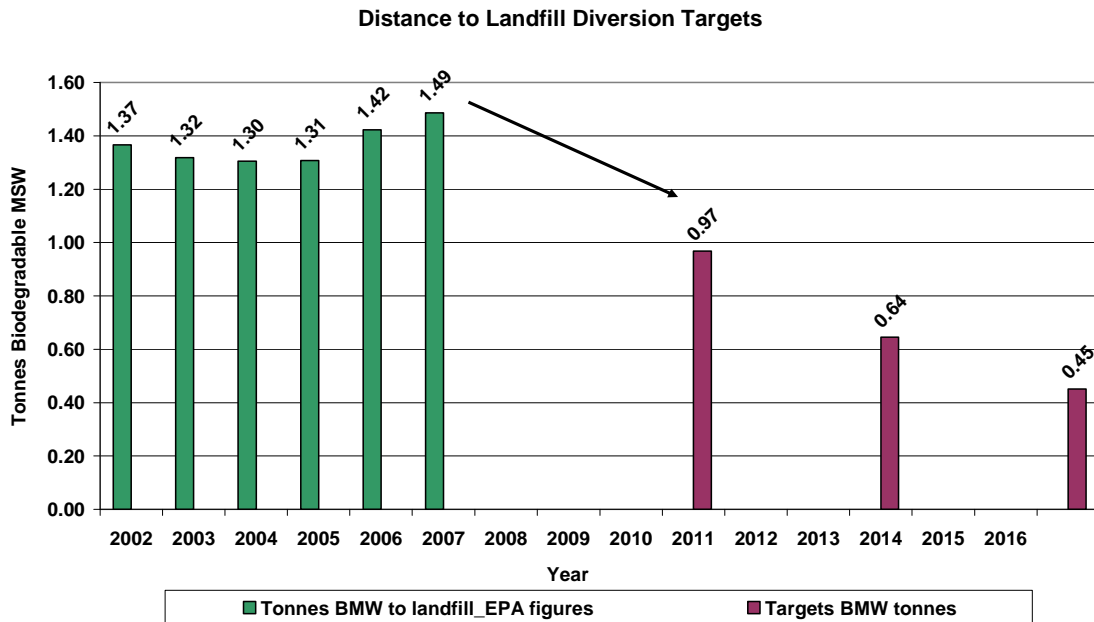
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<sup>2</sup> Drehid & Knockharley landfill EIS for planning & licensing applications

<sup>3</sup> Cre, *New Government has to make changes for composting*, Newsletter 15-August 2007, 2007, available at <http://www.cre.ie>, industry evidence at *Waste Summit* in November 2008

<sup>4</sup> EPA, *National Waste Report 2006, 2007*, available at <http://www.epa.ie>

<sup>5</sup> EPA, *National Waste Report 2007, 2009*, available at <http://www.epa.ie>



**Figure 2: Landfill Deposits vs. Diversion Targets**

Given this trend, it appears unlikely that Ireland will meet its first target in under one year from now. This was first signaled by the Comptroller and Auditor General back in 2005, and more recently by the EPA and ESRI, who have said:

- *“It is clear from the data that there is a growing risk that Ireland will not meet its first diversion-from-landfill target for biodegradable waste in 2010.”*<sup>6</sup>
- *“without a substantial shift to recycling or large-scale use of incineration, it is unlikely that Ireland will meet its EU Landfill Diversion obligations”*<sup>7</sup>

As a result of this ongoing reliance on landfill and low landfill gate fees, little alternative treatment capacity has developed in Ireland. As highlighted by Forfas<sup>8</sup>:

*“Ireland’s comparatively poor performance on key benchmarking indicators such as costs and waste treatment capacity can be traced back to the failure to deliver key waste management infrastructure in recent years”*

This has been confirmed by, amongst others, the Irish composting organisation Cre who have found that the low cost of landfill has caused the number of composting plants being built to drop off considerably along with the amount of waste sent to existing plants<sup>9</sup>. Low landfill prices therefore impact on the economic viability of all alternatives to landfill, from recycling and composting to waste-to-energy and MBT projects.

<sup>6</sup> EPA, *National Waste Report 2006, 2007*, available at <http://www.epa.ie>

<sup>7</sup> Fitzgerald, J. et al (2008), *Medium-Term Review 2008-2015*, ESRI

<sup>8</sup> Forfas (2008), *Waste Benchmarking Analysis and Policy Priorities*, Forfas, available at <http://www.forfas.ie>

<sup>9</sup> Meeting in Croke Park, 26<sup>th</sup> January 2009

### 3.0 Reason for Excess Capacity

Landfill capacity is planned for in Regional Waste Management Plans, which are designed to facilitate a coordinated approach to waste infrastructure while implementing EU and national waste policy.

Following the publication of the first plans in 1999-2000, concerns were raised that the national landfill capacity was becoming scarce and that certain regions could run out of options in the short to medium term. This resulted in the development of a significant quantity of new and unplanned landfill capacity, leading to the current excess.

For example, only one regional facility was envisaged in the North East Waste Management Plan. However, there are currently three facilities operated by local authorities as well as a privately operated facility. Extensions for these facilities have been approved that did not align with the plan, including:

- an extension to Louth County Council's Whiteriver landfill to 92,000 tpa (Ref: PL.15.EL.2004) for a 15 year period.
- an extension to Cavan County Council's Corranure landfill to total capacity of 90,000 tpa (Ref: PL.02.EL.2026).

As a result of these approvals, landfill capacity now exceeds waste deposited in the region. This illustrates how frequent digression from the plan can compromise the development of an integrated waste management system.

This also illustrates how, by preventing the development of alternatives, excess capacity perpetuates reliance on landfill. A perceived or minor scarcity in landfill capacity would in fact promote the development of much needed alternative waste infrastructure, driving up the price of landfill gate fees and providing some degree of certainty to developers of alternative technologies.

It must be acknowledged that excess landfill capacity is not typically a problem in Member States. This is because policy instruments like high landfill taxes or restrictions on the use of landfill capacity ensure that waste is diverted from whatever landfill capacity is available. However, the policy drivers in Ireland are currently inadequate with the main instrument being the landfill levy. At €20/t, this is not sufficiently high to enable alternatives to become competitive with landfill. This is discussed in more detail below.

### 4.0 Developing alternatives

There is currently some discussion about the types of alternatives to landfill that should be promoted in Ireland. Specifically, a number of recent consultations have indicated that mechanical biological pre-treatment or MBT should be favoured for residual waste treatment, and/or that waste-to-energy capacity should be restricted. At present, Irish waste policy as set out in the *National Strategy for Biodegradable Waste*, *National Bioenergy Action Plan*, *National Climate Change Strategy* and others favour waste-to-energy plants ahead of MBT with energy recovery and, as a last resort, MBT followed by landfill. A waste policy review is currently underway to review this policy and recommend how to develop alternatives. An outcome of this review is expected in mid 2009.

CEWEP Ireland is concerned that significant changes to waste policy at this late stage may dis-incentivise the very thing that is required: investment in alternative waste management facilities to treat residual waste. The figures indicate that Ireland needs rapid deployment of any or all of the alternatives in order to meet its landfill diversion targets.

However, it is important in developing alternatives to take cognisance of climate change and energy policy objectives. Specifically, the four key pillars of landfill diversion, energy efficiency, renewable energy and climate change, should all be prioritised in any policy decision making.

EU and Irish energy and climate change policy favours optimising resource recovery, including energy recovery, ahead of landfill of any waste residues. This is reflected in the waste hierarchy as set out in the revised Waste Framework Directive (2008/98/EC) and in the recently issued EPA guidance on the pre-treatment of MSW. For this reason, CEWEP Ireland believes that waste-to-energy has a valuable role to play as part of an integrated waste management system, alongside MBT, for residual waste and residue treatment.

## 5.0 Progress and Barriers

Some alternative capacity is currently under construction, having received all of the necessary approvals. For example, 800,000 tpa waste-to-energy capacity is under development in Dublin and Meath and is expected to be operational in 2011/12. It is estimated that over 195,000 tpa mechanical treatment capacity is currently operational.

However, the long term viability of this and other planned infrastructure relies on a number of barriers being removed. First of all, most alternatives cannot easily compete with low landfill gate fees including recycling and composting. Even with a landfill levy of €20/t possibly increasing to €25/t this year, the cost of landfill has the potential to drop to low as €70 - €75/t. It is understood that an increase to the landfill levy may be announced shortly. This levy would be ringfenced and returned to support prevention, re-use, recycling and composting initiatives and thereby ensure that the overall cost to the consumer of waste management does not increase. CEWEP Ireland therefore supports an increase in this levy.

Another barrier is policy uncertainty. As previously mentioned, there are a number of reviews and consultations currently underway that may influence policy relating to landfill alternatives. This has increased the risk to developers in the waste sector and could delay the development of new infrastructure. The international policy review in particular is designed to provide an overarching review of alternatives and inform policy decisions. As noted by the EPA:

*“Priority actions required are ... delivering the new waste policy on foot of the international review of waste management as quickly as possible – the international review is due for completion mid-2009 – to provide certainty and to allow for accelerated investment programmes that are necessary if organic waste is to be treated and landfill avoided”*

However, a number of consultations regarding, for example, differential levies on landfill and waste-to-energy and the direction of waste have been carried out in parallel and prior to the outcome of this report. It is critical that until the international review has been published, all parallel consultations are put on hold and that existing policy is adhered to.

Finally, until the Waste Framework Directive is transposed in Ireland, there may be a lack of clarity around the classification of different technologies. In line with the Directive, alternatives in the same tier of the hierarchy should be treated on a level playing field. However, recent consultations have suggested putting waste-to-energy at a competitive disadvantage to landfill and/or MBT.

Further, as MBT develops in Ireland, its position in the hierarchy and the management of MBT residues may influence policy and the development of other alternatives. It is understood that the position of MBT in the hierarchy may depend on the destination of the majority of the outputs. For example, the Federal Ministry for the Environment in Germany



considers MBT to be a disposal method whereas in Ireland it is currently being promoted as a recycling activity. However, a recent paper for the EPA<sup>10</sup> anticipated that MBT facilities would be considered as disposal activities where the majority of outputs go to landfill. Guidance is also needed, for example through EU policy on Biowaste, as to whether the recycling of stabilised biowaste via landspreading is an acceptable or recommended practice. Otherwise, residues should be recovered in line with the hierarchy and existing EU and Irish policy, in waste-to-energy or co-incineration plants rather than being sent to landfill. As noted, many recent consultations have not all aligned with this hierarchy approach.

However, the EPA Pre-treatment Guidance Note does require SRF to be recovered for energy recovery from MBT plants in line with the hierarchy. This note also effectively removes competition barriers between landfill and options higher in the hierarchy. It is understood that pre-treatment conditions outlined in the Guidance note will be applied from mid-2009. This would represent the most significant step towards meeting Landfill Directive targets and complying in the longer term with the Waste Framework Directive.

## **6.0 Recommendations**

It is understood that there has been some discussion over whether to continue with the Landfill Directive at a Commission level. Although the targets have been achieved in other Member States long ago, the Directive remains relevant and critical for Member States like Ireland in driving a move away from reliance on landfill towards more resource efficient alternatives. If anything, the possibility and extent of fines remains elusive. CEWEP Ireland believes that more guidance and closer monitoring of progress in lagging Member States like Ireland would assist in achieving targets by encouraging investment in alternatives to landfill and supporting policy makers in strengthening policy instruments.

Clarity is also sought on the application of the waste hierarchy, particularly regarding pre-treatment and the handling of pre-treated residues. At present a number of consultations seek to prioritise different technologies that in CEWEP Ireland's opinion do not align with the waste hierarchy. This may determine the future development of alternatives to landfill and the sustainability of Ireland's waste management system. Clarity on the implications of such policy subject to the recent publication of the Waste Framework Directive, and pending its transposition in Ireland, is sought.

## **7.0 Conclusions**

Ireland is currently well behind meeting its first landfill diversion target. This has perpetuated due to an excess of landfill capacity and subsequently, low landfill gate fees, which has effectively hindered the development of alternatives.

Some attempts are now being made to introduce instruments that would address this imbalance. Specifically, an increase in landfill taxes and/or pre-treatment conditions applied to all landfills would encourage the development of alternatives. However, the threat and extent of fines remains elusive and consultations and reviews continue to delay progress. CEWEP Ireland requests guidance from the Commission on the implications of missing Landfill Directive targets, to support industry and policy makers in applying instruments or investing in alternative infrastructure. Guidance is also sought regarding the application of the waste hierarchy prior to the transposition of the Framework Directive as well as on the management of biowaste residues.

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<sup>10</sup> Fehily Timoney (2008), *Critical Analysis of the Potential of Mechanical Biological Treatment for Irish Waste Management*, Research Report for the EPA.